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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,994	06/14/2001	Minoru Teshigawara	862.C2266	4699

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EXAMINER

HOFFMAN, BRANDON S

ART UNIT PAPER NUMBER

2136

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/879,994	TESHIGAWARA, MINORU	
	Examiner	Art Unit	
	Brandon S. Hoffman	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-17,19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-17,19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Claims 1, 3, 5-17, 19, and 21-23 are pending in this office action.
2. Applicant's arguments, filed August 8, 2006, have been fully considered but they are not persuasive.

### *Rejections*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

4. Claims 1, 3, 5-11, 16, 17, 19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami et al. (U.S. Patent No. 6,785,814) in view of Wong (U.S. Patent No. 6,504,941).

Regarding claims 1, 17, and 22, Usami et al. teaches and image processing apparatus/method/program comprising:

- Additional information generating means for generating additional information (fig. 11, ref. num 62); and
- Adding means for adding the additional information to image data to generate information-added data (fig. 11, ref. num 63 and col. 20, lines 10-29).

Usami et al. does not teach encrypting means for encrypting the information-added data to make it difficult to detect a position where the additional information is added, wherein said encrypting means encrypts the information-added data by randomly arranging the data.

Wong teaches encrypting means for encrypting the information-added data to make it difficult to detect a position where the additional information is added (fig. 9A, ref. num 920 and 922), wherein said encrypting means encrypts the information-added data by randomly arranging the data (col. 3, lines 10-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine encrypting information-added data in a position where it is difficult to detect, as taught by Wong, with the system/method/program of Usami et al. It would have been obvious for such modifications because the confusion of watermark location provides authentication and ownership verification (see abstract of Wong).

Regarding claim 3, Usami et al. as modified by Wong teaches wherein said encrypting means adds key information for specifying an encryption method to the encrypted information-added data (see col. 1, lines 16-21 of Usami et al.).

Regarding claim 5, Usami et al. as modified by Wong teaches wherein said encrypting means arranges the information-added data on the basis of a predetermined random pattern (see col. 2, lines 22-34 of Usami et al.).

Regarding claim 6, Usami et al. as modified by Wong teaches wherein the key information is information for specifying the random pattern (see col. 2, lines 22-34 of Usami et al.).

Regarding claim 7, Usami et al. as modified by Wong teaches transmitting means for transmitting the image data encrypted by said encrypting means to a connected image forming apparatus (see fig. 5 of Usami et al.).

Regarding claim 8, Usami et al. as modified by Wong teaches wherein the additional information includes first information for specifying the image forming apparatus (see col. 12, lines 39-49 of Usami et al.).

Regarding claim 9, Usami et al. as modified by Wong teaches wherein the first information is notified from the image forming apparatus (see col. 12, lines 39-49 of Usami et al.).

Regarding claim 10, Usami et al. as modified by Wong teaches wherein the additional information includes second information associated with a processing environment for the image data (see col. 4, lines 31-46 of Usami et al.).

Regarding claim 11, Usami et al. as modified by Wong teaches wherein the second information includes information for specifying the image processing apparatus (see col. 4, lines 31-46 of Usami et al.).

Regarding claim 16, Usami et al. as modified by Wong teaches wherein the image data is color image data made of a plurality of color components, and said adding means adds the additional information to data of a predetermined color component of the color image data (see col. 2, lines 40-53, 66-67 and col. 3, lines 1-20 of Usami et al.).

Regarding claim 19, Usami et al. teaches an image processing system having an image processing apparatus connected to an image forming apparatus (fig. 5 and col. 1, lines 16-20),

Said image processing apparatus including

- Additional information generating means for generating additional information (fig. 11, ref. num 62);
- Adding means for adding the additional information to image data to generate information-added data (fig. 11, ref. num 63);

- Transmitting means for transmitting the encrypted image data to said image forming apparatus (fig. 5); and  
Said image forming apparatus including
- Receiving means for receiving the encrypted data transmitted from said image processing apparatus (fig. 12, ref. num 51) and
- Image forming means for forming a visible image on the basis of the decrypted information-added data (fig. 12, ref. num 65 and col. 16, lines 18-30).

Usami et al. does not teach encrypting means for encrypting the information-added data to make it difficult to detect a position where the additional information is added or decrypting means for obtaining the information-added data by decrypting the received encrypted data, wherein said encrypting means encrypts the information-added data by randomly arranging the data.

Wong teaches encrypting means for encrypting the information-added data to make it difficult to detect a position where the additional information is added and decrypting means for obtaining the information-added data by decrypting the received encrypted data (fig. 9A, ref. num 920 and 922), wherein said encrypting means encrypts the information-added data by randomly arranging the data (col. 3, lines 10-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine encrypting information-added data in a position where

it is difficult to detect and decrypting the encrypted information, as taught by Wong, with the system of Usami et al. It would have been obvious for such modifications because the confusion of watermark location provides authentication and ownership verification (see abstract of Wong).

Regarding claim 21, Usami et al. as modified by Wong teaches wherein

- Said encrypting means adds key information for specifying an encryption method to the encrypted information-added data (see col. 1, lines 16-21 of Usami et al); and
- Said decrypting means decrypts the encrypted data on the basis of the key information added by said encrypting means (see col. 16, lines 18-30 of Usami et al.).

Regarding claim 23, Usami et al. as modified by Wong teaches a storage medium storing the program defined in claim 22 (see fig. 1 of Usami et al.).

Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami et al. (USPN '814) and Wong (USPN '941) in view of Ito et al. (US 2001/0013097 A1).

Regarding claim 12, Usami et al. as modified by Wong teach all the limitations for the following limitation. Ito et al. teaches wherein the information for specifying the



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image processing apparatus includes a network ID of the image processing apparatus (paragraph 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al. within the system of Usami et al./Wong because a network ID is essential for the image processing apparatus to be identifiable and hence connected to a network.

Regarding claim 13, Usami et al. as modified by Wong teach all the limitations except for the following limitation. Ito et al. teaches wherein the network ID is acquired in accordance with a type of network to which the image processing apparatus is connected (paragraph 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al. within the system of Usami et al./Wong because a network ID is essential for the image processing apparatus to be identifiable and hence connected to a network.

Regarding claim 14, Usami et al. as modified by Wong teach all the limitations except for the following limitation. Ito et al. teaches wherein the information for specifying the image processing apparatus includes a user ID of the image processing apparatus (paragraph 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al. within the system of Usami et al./Wong because a network ID is essential for the image processing apparatus to be identifiable and hence connected to a network.

Regarding claim 15, Usami et al. as modified by Wong teach all the limitations except for the following limitation. Ito et al. teaches wherein the second information includes processing date information of the image data (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al. within the system of Usami et al./Wong because the processing date information will enable ID of the embedded supplemental information to be unique and hence more secure.

### ***Response to Arguments***

5. Applicant argues:

- a. Usami et al. teaches encrypting supplementary information, then embedding the encrypted supplementary information into the image data (page 3 through page 4, second paragraph).
- b. Wong does not teach encrypting information-added data to make it difficult to detect a position where additional information is added, wherein the

information-added data is encrypted by randomly arranging the data (page 4, third paragraph through page 5, third paragraph).

Regarding argument (a), examiner disagrees with applicant. Usami et al. discloses that the supplementary data is embedded into the image data by a process called deep layer encryption. It is not that the supplementary data is encrypted, and then embedded. The process of embedding involves a deep layer encryption.

Regarding argument (b), examiner disagrees with applicant. Wong discloses encrypting information-added data at figure 9A, reference numbers 920 and 922. Any encryption method would "make it difficult to detect a position where additional information is added." The nature of encryption confuses (or alters) the data so that someone looking at the encrypted data can't tell where any original data is compared to the added data. Figure 9A, reference number 912 accepts values, such as image height and width. Encrypting these values would randomly arrange the data.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser G. Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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*[Signature]*  
16, 12, 06